The observatory of cattle reproductive performance in France

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What is Reproscope?

Discussions experts / technicians

Databases (BDNI* / SNIG**) +

Building an observatory of cattle reproduction in France

www.reproscope.fr

7 millions of calvings
5 millions of inseminated cows
82,000 dairy herds
109,000 suckling herds

*BDNI : National Identification Database
**SNIG : National System of Genetic Information
Targets?  A project for breeders...
...but not only: advisors
consultancy bodies
agricultural education
researchers...

Advantages?

• Open to everyone online
• Updated each year
• Uniform and complete: all cows and herds in France
Choose your population

Characteristics of the herd

- Geographic area
- Type of production
- Breed
- Specialisation
- Production level
- Herd size

Reproduction management

- Calving seasons
- % of first-calf heifers
- % of AI
- % of crossbreeding
- Age at 1st calving objective
Choose the scale

Animals performances

Herds performances
Which performances?

20 criteria

- % calves born through AI
- % crossbred calves
- % 0 to 2-day mortality
- % 3 to 120-day mortality
- Practice productivity

- Age at 1st calving
- % of first-calf heifers
- % of pregnant heifers after 1st AI
- Number of AI per inseminated heifer
- % of heifers with at least 3 AI

AI: artificial insemination
Look at the results

**Example**: % pregnant cows after 1st AI

- **Herds** performances
- 2016-2017
- France

- **Animals** performances
- 2016-2017
- France

3,858,393 Calved females

### Fertility (cows)

<table>
<thead>
<tr>
<th></th>
<th>Number</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calvings after 1st AI</td>
<td>402,220</td>
<td>71%</td>
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Possible use of the observatory?

To describe reproduction practices

% of calving from AI

58,635 herds
- 79 % inseminated cows in average

75,666 herds
- 13 % inseminated cows in average

% pregnant cows after 1st AI

- 51%, i.e. +1%
- 62%, i.e. +5%

...in comparison to national reference
Possible use of the observatory?

To show performances variability

Example:

• % pregnant cows after 1st AI
• Herds performances
• 2016-2017
• France
Possible use of the observatory?

To measure differences between areas, breeds, systems...

Example:
- % pregnant cows after 1st AI
- Herds performances
- 2016-2017
- France

7,929 herds, calvings:
- spread = 46 % 1st AI
- semi-grouped = 48 % 1st AI
- very grouped = 50 % 1st AI

2,698 herds, calvings:
- spread = 46 % 1st AI
- semi-grouped = 47 % 1st AI
- very grouped = 49 % 1st AI

3,569 herds, calvings:
- spread = 55 % 1st AI
- semi-grouped = 57 % 1st AI
- very grouped = 57 % 1st AI
Possible use of the observatory?

To eradicate the received ideas

**Example**: Effect of dairy production: animal effect ≠ herd effect

- % **pregnant cows after 1st AI**
- Herds performances
- 2016-2017: < 7,000 kg milk/year, 7,000 – 8,999 kg milk/year, ≥ 9,000 kg milk/year
- France

![Diagram showing herds performances]

- < 7,000 kg milk/year: 10,745 herds
- 7,000 – 8,999 kg milk/year: 16,241 herds
- ≥ 9,000 kg milk/year: 3,473 herds

Avg. 48
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